1. (Previously Presented) A copper interconnect comprising:

an impure copper seed layer derived from a first impure copper source, said impure copper seed layer has a first content of impurity and is deposited on a barrier layer, said barrier layer prevents substantial diffusion of copper through to an underlying insulating layer; and

an impure copper fill derived from a second impure copper source, said impure copper fill has a second content of impurities and fills an opening in said underlying insulating layer and on said impure copper seed layer;

wherein material composition of said impure copper seed layer is the same as material composition of said impure copper fill except some impurities in the impure copper fill are absent from the impure copper seed layer as a consequence of deposition of the impure copper seed layer; and

said first content of impurity of said impure copper seed layer comprises not more than 1.20% by weight and not less than or equal to 0.001% by weight.

2-3. (Cancelled)

4. (Previously Presented) A copper interconnect as in claim 1, wherein said first impure copper source of said impure copper seed layer is substantially equivalent to said second impure copper source of said impure copper fill.

5. (Previously Presented) A copper interconnect as in claim 1, wherein said first and second impure copper source comprises impurities chosen from the group of Ag, As, C, Cd, Cl, Co, Cr, Fe, In, Mg, Mn, N, Ni, O, Pb, S, Sn, Tl, and Zn.

6-12. (Cancelled)

13. (Previously Presented) A copper interconnect comprising:

an insulating layer that has an opening;

a barrier layer that prevents substantial diffusion of copper through to said underlying insulating layer that is deposited on said underlying insulating layer and lines said opening;

an impure copper seed derived from an impure copper seed source with a content of impurity that is deposited on said barrier layer and fills said opening;

an impure copper fill derived from an impure copper source with a content of impurities that fills said opening in said underlying insulating layer that is deposited on said impure copper seed;

wherein material composition of said impure copper seed is the same as material composition of said impure copper fill except some impurities in the impure copper fill are absent from the impure copper seed layer as consequence of deposition of the impure copper seed layer; and;

wherein said impurity content comprises not more than 1.20% by weight and not less than or equal to 0.001% by weight of said impure copper seed layer.

14. (cancelled)

15. (original) A copper interconnect as in claim 13, wherein said impure copper from said impure copper seed source comprises impurities chosen from the group of Ag, As, C, Cd, Cl, Co, Cr, Fe, In, Mg, Mn, N, Ni, O, Pb, S, Sn, Tl, and Zn.

16-20. (Cancelled).